Copy No. 29
11 August 1960

APPROVED FOR RELEASE DATE: NOV 2005

CIA/RR CB-60-41

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CURRENT SUPPORT BRIEF

POSSIBLE SHYSTER MISSILE BASE IN EAST GERMANY

OFFICE OF RESEARCH AND REPORTS

CENTRAL INTELLIGENCE AGENCY

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POSSIBLE SHYSTER MISSILE BASE IN EAST GERMANY

An unconfirmed report of a missile installation 2.5 kilometers northwest of Jueterbog, East Germany provides the first information on a possible 700 nautical mile (nm) missile launching site. Earlier reports indicated the presence in East Germany of missiles and missile transport equipment comparable in size to the 700 nm SHYSTER missile and its carrier which appeared in the 1957 and 1960 Moscow May Day Parades.

A two floor underground bunker and three concrete missile launching pads were reportedly completed in early 1960 at a location 2.5 kilometers northwest of Jueterbog, near Neuheim (formerly Dorf Zinna). 1/ The site is a cleared and slightly concave keyhole shaped area concealed by low hills and trees. Four reinforced concrete platforms from which imbedded anchor bolts protruded, apparently for the attachment of a superstructure, were associated with each pad. These four platforms formed a square with one side based on a concrete pad which extended to a small service or dolly track connecting the three pads with the underground bunker.

In March 1960, additional work was required to strengthen the floor between the two underground levels of the bunker. Overloading of the upper level resulted in the collapse of a supporting beam. At this time a number of large missiles (covered by canvas) about 22 meters (72.18 feet) long and 1.5 meters (4.92 feet) in diameter were alleged to have been observed on the lower level of the bunker. These dimensions are close to those estimated for the 700 nm SHYSTER missile which appeared in the 1957 and 1960 Moscow May Day Parades (68 to 70 feet in length and 5.15 to 5.70 feet in diameter).

The Jueterbog area has been associated with Soviet missile activity in East Germany but this is the first report of a possible SHYSTER launching site there. The Soviet military installation at Altes Lager is located several miles west of the site. Strict security precautions have been reported at the military railroad station at Forst Zinna, several miles north of the Neuheim site 2/ and missile-associated equipment reportedly has been unloaded at this point. 3/ Possible missile-related construction and storage activity has been reported at several Soviet military installations in the Jueterbog area 4/ other than at the site southwest of the town at the Jueterbog-Damm airfield where there is a confirmed Soviet surface-to-air missile installation.

Shortly after midnight on the morning of the 20th of April 1959, a very slow moving column of Soviet military vehicles, led by two GAZ-69A type trucks, was observed proceeding from the direction in which the Jueterbog-Damm airfield and a railroad loading ramp are located in a northwesterly direction along the western outskirts of Jueterbog. (The possible SHYSTER missile site is located northwest of Jueterbog). Following the trucks at a distance of 25 meters was a wheeled prime mover with a "specially" constructed trailer of well-wagon design carrying a missile. 5/ The missile resembled the Moscow May Day Parade SHYSTER in size and configuration; the prime mover and trailer appeared to be of

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a new and possibly operational design in comparison with those observed previously. The total length of the carrier was 27 meters (88.58 feet). The missile appeared to be 23 meters x 1.2-1.5 meters (75.46 feet x 3.94-4.92 feet). A tank truck, longer than the ordinary Soviet tank truck and with unique centrifugal pump and pipeline attachments, followed the missile carrier. At the rear of the column was a GAZ-51 type personnel carrier.

The 4-axled missile trailer had two heavy hydraulic lifting devices visible behind the cab of the prime mover and a cable tack-ling device. The missile was held in a cradle the front end of which rested on the two hydraulic lifting devices. The nose cone extended beyond the end of the cradle and over the cab of the prime mover. The rear sections of the missile and carrier were canvas covered, but a driver was clearly visible in a cabin on the left rear side of the trailer. This driver operated the rear steering wheel as the missile carrier negotiated a left curve in the road.

Late in 1959 a missile trailer of similar design but shorter than the trailer observed carrying a possible SHYSTER missile in Jueterbog was reportedly tested for on- and off-loading near the aldeged missile launch site at Neuheim. 6/ A series of such trailers, varying in carrying capacity, some of which are allegedly being produced at the Fahrzeugwerk in Treuenbreitzen for the Soviet military, appear to be a newer and possibly more operational configuration than the one used to carry the SHYSTER in the 1957 and 1960 Moscow Parades. An operational trailer capable of both transporting the missile and serving as part of the launch mechanism after emplacement of the missile on a launching platform would be a logical development for a semi-mobile operational SHYSTER missile system.

A number of special military train shipments, suspected of carrying unidentified Soviet missiles and related equipment, were observed at several other locations in East Germany during 1959. Several rail shipments of unusually long crates which could have contained a missile of SHYSTER dimensions were observed in the Gross Doelln-Vogelsang area of major Soviet installations north of Berlin in the early months of 1959. 7/ A group of eight trailers probably identical to the SHYSTER Parade trailer, based on analysis of available photography, was observed entering East Germany by rail at Frankfurt-Oder, on 9 September 1959. 8/ was the first firm indication of a possible Soviet intention to deploy the SHYSTER 700 nm range missile in East Germany. A series of rail shipments, each carrying three canvas-covered missiles 50-60 feet long, were observed entering the Toepchin ammunition depot located approximately 30 miles northeast of Jueterbog. These shipments were observed from October 1959 to January 1960. 9/ The SHYSTER missiles is 50 feet long without the

The volume of possible liquid oxygen which was transported to East Germany in Soviet military tank cars during 1959 provides further indication that the Soviet SHYSTER missile is deployed in East Germany. The SHYSTER is believed to utilize liquid oxygen as an oxidizer. It is estimated that the shorter-range Soviet surface-to-surface missiles, with the possible exception of the 75 nm SCUD, do not utilize liquid oxygen. The Soviet GUIDELINE surface-to-air missile deployed in East Germany utilizes a non-cryogenic bi-propellant in the sustainer; it has a solid-propellant booster. The number of military shipments of liquid

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oxygen appears to be in excess of normal Soviet military requirements in East Germany. Some of the tank cars were delivered to known Soviet POL depots, including gross Doelln and Biesenthal north of Berlin and Pfaffendorf (Wilmersdorf) and Mixdorf south of Berlin. 10

It is estimated that Soviet surface-to-surface missiles of nominal 700 nm range have been available for operational deployment since 1956. To date, 700 nm range SHYSTER launch sites have not been positively identified in the USSR. The use of SHYSTER missiles from bases in East Germany would strengthen the Soviet missile capability against many NATO targets in Western Europe and England.

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